

APPENDIX C (SPECIES OF CONCERN)

| Species | BLM Status | Forest Service Status |
|--------------------------------|-------------------|------------------------------|
| Bald Eagle | Threatened | Threatened |
| Canada Lynx | Threatened | |
| Boreal Toad | Threatened | |
| North Park Phacelia | Candidate | |
| Osterhout Milkvetch | Endangered | |
| Colorado Pikeminnow | Endangered | Endangered |
| Penland Beardtounge | Endangered | |
| Bonytail | Listed | Listed |
| Eskimo curlew | | ??? |
| Humpback Chub | Endangered | Endangered |
| Pallid Sturgeon | Threatened | Threatened |
| Razorback Sucker | Endangered | Endangered |
| Least Tern | Threatened | Threatened |
| Piping Plover | Threatened | Threatened |
| Dudly Bluffs Bladderpod | Threatened | |
| White River Penstemon | Candidate | |
| Graham Geardtounge | Candidate | |
| Piceance Twinpod, | Threatened | |
| Whooping Crane | Endangered | Endangered |
| American Peregrine | Endangered | Endangered |
| Mexican Spotted Owl | Threatened | |
| Black Footed Ferret | | Endangered |
| American burying beetle | | ??? |
| Ute Ladies Tresses Orchid | Threatened | Threatened |
| Western prairie fringed orchid | | ??? |

APPENDIX D (REFERENCES AND CITATIONS)

Anderson, Hal E. 1982. **Aids to determining fuel models for estimating fire behavior.** USDA For. Serv. Gen. Tech. Rep. INT 122, 22p. Intermountain Forest and Range Experiment Station, Ogden, UT.

Andrews, P. 1986. **BEHAVE: Fire Behavior Prediction and Fuel Modeling System- BURN Subsystem, Part 1.** USDA For. Ser. Gen. Tech. Rep. INT-194.

Bureau of Land Management. Colorado State Office. 1997. **Standards for Public Land Health.** Available on the Internet at <http://www.co.blm.gov/standguide.htm>

Deeming, J. & Lancaster, J.; Fosberg, M.; Furman, R. & Schroeder, M. 1972. **National Fire Danger Rating System.** USDA For. Ser. Res. Pap. RM-84.

EPA. **Green Book.** Available on the Internet at <http://www.epa.gov/oar/oagps/greenbook>.

Interagency Standard for Fire and Fire Aviation Operations and the BLM Office of Fire and Aviation. Available on the Internet at <http://www.fire.blm.gov/>

Managing the Impacts of Wildfires on Communities and the Environment – a Report to the President, August 2000. Available on the Internet at: <http://www.fireplan.gov/reports/7-19-en.pdf>.

National Fire Danger Rating System. USDA For. Ser. Res. Pap. RM-84.

National Fire Plan, **A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment-10 Year Comprehensive Strategy.** Available on the Internet at <http://www.fireplan.gov/reports/7-19-en.pdf>

Romme, William H., et al. 1992. Old-Growth Forests of the San Juan National Forest in Southwestern Colorado. **Found in USDA General Technical Report RM-213; Old Growth Forests in the Southwest and Rocky Mountain Regions – Proceedings of a Workshop, March 9-13, 1992, Portal, Arizona.**

USDA Forest Service. 2002. Rocky Mountain Research Station, Fire Sciences Laboratory. **Fire Effects Information System.** Available on the Internet at <http://www.fs.fed.us/database/feis/index.html>

USDI/USDA FS, 2004. **Interagency Standards for Fire and Fire Aviation Operations 2004,** NFES 2724.

USDI/USDA Forest Service, 1995. **Final Report: Federal Wildland Fire Management Policy and Program.**

USDI/USDA Forest Service. 2001. **Review and Update of the 1995 Federal Wildland Fire Management Policy**, January 2001. Available on the Internet at:
http://www.nifc.gov/fire_policy/index.htm

Zimmerman, G. & Bunnell, D.1998. **Wildland and Prescribed Management Policy – Implementation Procedures Reference Guide**. National Interagency Fire Center. Boise, Idaho.

APPENDIX E (NEPA – LITTLE SNAKE BLM AND BROWNS PARK FFWS)

LITTLE SNAKE BLM AND BROWNS PARK NWR

Documentation of Land Use Plan and NEPA Adequacy (DNA)
U.S. Department of the Interior Bureau of Land Management

LITTLE SNAKE FIELD OFFICE

NUMBER: C0-100-LS-02-043 DNA

PROJECT NAME: Little Snake Field Office and Browns Park National Wildlife Refuge Fire Management Plan Update.

LEGAL DESCRIPTION: All Public Lands in the Little Snake Field Office and the Browns Park National Wildlife Refuge

APPLICANT: BLM

A. DESCRIBE THE PROPOSED ACTION

The proposed action is to update the Little Snake Field Office and Browns Park NWR Fire Management Plan for all public lands managed by the Little Snake Field Office (LSFO) and Browns Park NWR. This was a result of the 2001 FMP review by the Little Snake resource and fire specialist. The proposed changes to the FMP are as follows:

- 1) Language added to page 26 #2, Polygon B-6: “Provide protection for cottonwood riparian along the Green River.”
- 2) Language added to page 11, end of paragraph 2: “In addition, fire use incidents to achieve resource objectives may be extinguished or confined at such time when they have physically reached their extent or have little potential for spread. The best management practice for economic efficiency and use of scarce resources would dictate the extinguishment of a smoldering fire with little potential to spread rather than monitor it for extended periods of time.”
- 3) It is proposed to change the spread component and energy release component in the FMP to reflect a compromise between the Moffat County and LSFO BPNWR fire management plans at the 90th percentile for ‘C’ polygons and the 95th percentile for ‘D’ polygons (See Table 1). This would align the Moffat County FMP, which manages fire on private lands with the LSFO FMP, which manages fire on public lands and provide consistency for fire-use fires between property boundaries. This would also allow more days in the course of the fire season for fire use to achieve resource objectives in the initial stage. The Go/No-Go checklist and management of the fire in Stage I-III would

determine the fires status as use or suppression for all but 5% of the average worst days in the fire season by these indices (Spread Component and Energy Release).

Table 1. Current, Proposed and Moffat County SC and ERC.

| | | Current % tile | Break point | Proposed % tile | Break Point | Moffat Co. % tile | Break Point |
|---------------------------|--------------|-------------------|----------------|--------------------|----------------|-------------------------|----------------|
| Spread Comp. | C Polygon | 85 th | 30ch/hr | 90 th | 40chr/hr | 90 th | 65ch/hr |
| | D Polygon | 90 th | 40ch/hr | 95 th | 60ch/hr | 97 th | 90ch/hr |
| Energy Release Comp | C Polygon | 85 th | 80 | 90 th | 85 | 90 th | 85 |
| | D Polygon | 90 th | 84 | 95 th | 90 | 97 th | 95 |

RATIONALE:

The prescription derived to address fire effects and extent in the LSFO BPNWR FMP is based on three elements that describe environmental and atmospheric characteristics and fire behavior. The spread component (SC) is an estimate of the rate of spread of a fire with local environmental and weather (wind) factors in the computation. Currently in the FMP, the breakpoint for SC in ‘C’ polygons is the 85th percentile SC from the Ladore Remote Automated Weather Station (RAWS) over the decades 4/1/80 – 10/31/99 (summer months only). The 85th percentile equates to a spread rate of less than 30 chains an hour, in a NFDRS model. In the ‘D’ polygons the 90th percentile was used which equates to 40 ch/hr. SC is the fire behavior characteristic descriptor in the FMP (see definition FMP Glossary pp B-3).

The energy release component (ERC) is used in the prescription as the environmental descriptor. ERC is an indicator of dryness and is most often used by fire managers in the western U.S. to track seasonal drying trends in wildland fuels (see definition FMP Glossary pp B-1). Currently the data collected by the remote weather stations in the fire management area is computed on a NFDRS G fuel model and is used as the primary indicator for judgments made in severity of environmental affects of fire management decisions. The G fuel model is not the typical model for the areas fuels, but is used to show a relatively stable condition in seasonal trends. Currently the LSFO FMP uses the 85th percentile ERC as a breakpoint for fire use in ‘C’ polygons and the 90th percentile for ‘D’ polygons. ERC is the primary indicator for the Moffat County FMP and is also used by Dinosaur N.M. to assess critical fire potential. Both of these fire programs use the 97th percentile ERC as their breakpoint for fire use.

The Haines Index is the atmospheric descriptor in the FMP. This index is a measure of the instability and dryness in the atmosphere (see definition FMP Glossary pp. B-1). Although this indicator is used during the dryer times of the year as a valuable means to suggest the probability of rapid fire growth, it has been of little value as an indicator when fuel dryness (ERC) or wind (SC) are not present in the right combination to provide for extreme fire potential.

The prescriptive parameters in the original FMP are restrictive for several reasons. First, the parameters only give a general reference of fire potential and do not take specific sites into account. For instance, there are many landscapes throughout the area that given the worst of these indicators, fires would not spread due to lack of fuel continuity and other site factors. Secondly, the RAWS are set for worst-case scenario. The weather observations that the indices are derived from do not necessarily represent the whole area they are predicting for. The live and dead fuel moistures are under predicted and they are basic inputs into the National Fire Danger Rating System Indices.

Changing the prescriptive parameters would allow 10 extra days in the fire season to allow for fire use. These additional 10 days would exhibit dryer fuel conditions, but would still have spread component as an indicator for prescription control. This could contribute to more acres burned in the 'C' and 'D' polygons, thus increasing the probability of reaching the thresholds set over the next decade by the FMP. The interdisciplinary team set specific acres by type, for most polygons, that may be managed by fire over the decade to insure the acres burned are within the context of the FMP. The annual review process was established to track the burned acres by type and location and make recommendations for further management of fires with in polygons as they approach any acreage threshold. If the prescription parameters are raised, additional acres burned will be scrutinized by this same process, as well as the Go/No-Go checklist and the management prescribed through state I-III WFIP.

B. LAND USE PLAN (LUP) CONFORMANCE

LUP Name: Little Snake Resource Management Plan and Record of Decision (ROD) Date
Approved: April 26, 1989.

C. IDENTIFY APPLICABLE NEPA DOCUMENTS AND OTHER RELATED DOCUMENTS THAT COVER THE PROPOSED ACTION.

EA CO-100-LS-00-028, Little Snake Field Office and Browns Park National Wildlife Refuge Environmental Assessment.

D. NEPA ADEQUACY CRITERIA

- 1. Is the current proposed action substantially the same action (or is a part of that action) as previously analyzed? Is the current proposed action located at a site specifically analyzed in an existing document?**

Yes, the LSFO & BPNWR FMP was analyzed in 2000 when the plan was developed. The current proposed action is substantially the same action as was previously addressed in a resource area-specific manner in the Record of Decision (March 2000) of the approved FMP NEPA document.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the current proposed action, given current environmental concerns, interests and resource values?

The range of alternatives addressed in the FMP EA are appropriate for the current proposed action. No new alternatives have been proposed by the public to address current or additional issues and concerns. No new information has been identified that requires change or consideration of new alternatives.

3. Is the existing analysis valid in light of any new information or circumstances.

The proposed action would have no disproportionate impacts on minority populations or low income communities (E.O. 12898), is in compliance with the District Noxious Weed Management Plan and the President's Executive Order, signed 1/10/01, which mandates evaluation of effects of actions and agency plans on migratory birds.

Resource conditions continue to meet objectives and goals. The previous analysis remains valid. No new threatened or endangered plant or animal species have been identified in the LSRA since the completion of the EA. Data reaffirms that the FMP identified all resource concerns for the affected environment.

4. Do the methodology and analytical approach used in the existing NEPA document(s) continue to be appropriate for the current proposed action?

The methodology and analytical approach used in the existing NEPA documents continue to be appropriate for the current proposed action.

5. Are the direct and indirect impacts of the current proposed action substantially unchanged from those identified in the existing NEPA document(s)? Does the existing NEPA document analyze site-specific impacts related to the current proposed action?

Direct and indirect impacts of the current proposed action are unchanged from those identified in the existing NEPA documents. Impact with regard to fire and fire use have been thoroughly addressed in the applicable NEPA documents, including impacts to upland vegetation, riparian habitat, wildlife and cultural resources.

6. Can you conclude without additional analysis or information that the cumulative impacts that would result from implementation of the current proposed action substantially unchanged from those analyzed in the existing NEPA document(s)?

The cumulative impacts that would result from implementation of the proposed action would remain unchanged from those identified in the existing NEPA documents.

7. Are the public involvement and interagency review associated with the existing NEPA document(s) adequate for the current proposed action?

Extensive public outreach through scooping and involvement of publics and other agencies occurred in the development of the FMP. This proposed action is substantially the same as analyzed in the existing NEPA documents.

E. Interdisciplinary Analysis: Identify those team members conducting or participating in the preparation of this worksheet.

| Name | Title | Resource Represented | Initials |
|----------------|------------------------------------|-------------------------|----------|
| Dave Blackstun | Renewable Resource Staff Supv | | _____ |
| Duane Johnson | Planning/Environmental Coordinator | NEPA | _____ |
| Hal Keesling | Archaeologist | Cultural | _____ |
| Mieke Bruch | Range Management Specialist | Weeds | _____ |
| Andrea Minor | Range Management Specialist | T&E Plants | _____ |
| Hunter Siem | Range Management Specialist | Range | _____ |
| Tim Novotny | Wildlife Biologist | T&E Animals | _____ |
| Desa Ausmus | Wildlife Biologist | Wildlife | _____ |
| Ole Olsen | Natural Resource Specialist | Riparian | _____ |
| Jim McBrayer | Outdoor Recreation Planner | Recreation/visual | _____ |

SPECIAL STIPULATIONS LSFO

1. Inventories of noxious weeds and invasive plant species need to be compiled on an ongoing basis. Areas where these plants have moved from transportation corridors into the adjacent plant communities need to be identified. New infestations need to be reported, and existing populations of invasive species need to be identified and integrated into the fire management plan.
2. Burned areas, including the unburned perimeter, need to be monitored for cheatgrass and other noxious weed species. Chemical applications need to be utilized when appropriate to enhance the establishment of seeded species or to control noxious weeds.
3. Weeds need to be managed through the principals of integrated pest management, which employs a combination of control methods including cultural, physical, biological, chemical, prevention, education and awareness.
4. All prescribed fires will be reviewed for riparian resources. Only in rare instances would the riparian vegetation along stream courses be burned under prescription. What burning does occur will be very limited or will be done incrementally over small areas to protect cover vegetation and water quality.
5. C1, C5, C9 and C13 are the best quality sage grouse nesting areas. If a natural ignition occurs between April 1 and June 30 in sage grouse production areas, use fire tactics that hold fire size to less than 500 acres.
6. In lynx habitat¹ (i.e. east portion of C1 and B1), for both planned treatments and wildland fires managed for resource benefit:
 - Minimize the construction of temporary roads and mechanized fire lines to the extent possible during fire suppression activities.
 - Avoid constructing permanent fire breaks on ridges or saddles.
 - Delay livestock use in post-fire openings until successful regeneration of the shrub and tree components occurs.
7. For planning treatments in lynx habitat¹, the broad-scale strategy should be based on a comparison of historical and current ecological processes and landscape patterns, such as age-class distributions and patch size characteristics. Design fuel treatments to be consist with historical succession and disturbance regimes.

¹ The lynx habitat used to develop the planning objectives table and map is in the process of being updated by the Colorado Natural Heritage Program. Next year (2001), when the new data on lynx habitat is available, the Plan and map will be revised to reflect this new data. At that time, the B1 polygon will be adjusted to include all lynx habitat. Until the map has been updated, all wildland fires in C1 that are within 2 miles of the boundary with B1 will be fully suppressed.

8. In each crucial or limiting habitat (i.e severe and critical mule deer and antelope habitat, sage grouse production and winter range, and sharptail production areas) monitor the polygons and acres of habitat manipulated on both public and private lands. If the threshold of acres burned or regenerated are reached, evaluate management options.

9. Burned areas within pinyon-juniper, mountain shrub and sagebrush communities that are lacking desirable perennial grass vegetation will be seeded. Relatively small fires may have sufficient vegetation growing on the perimeter to provide a natural seedbank if grazing systems are compatible with desirable plant seed production. However, it may be necessary to seed with adapted plant species mix in the fall following fire or prior to spring germination period.

